

# FOREST PEST MANAGEMENT

Report No. 81-3-12

Issued: 6/29/81

## AERIAL DETECTION SURVEY OF FOREST INSECT AND DISEASE ACTIVITY, SHENANDOAH NATIONAL PARK, VIRGINIA

LAND OWNERSHIP OR SURVEY AREA: Department of Interior  
National Park Service  
Shenandoah National Park

STATE: Virginia

AREA WITHIN SURVEY BOUNDARY: 190,420 acres

DATE: June 22, 1981

PERCENT COVERAGE: 100%

AIRCRAFT: Cessna 182

CREW: C.W. Dull, David Haskell, Jon March

REPORT PREPARED BY: C.W. Dull

### SURVEY OBJECTIVES

To detect the presence of forest insect and disease activity within the Shenandoah National Park. Timing of this survey coincided with the period of maximum gypsy moth, Lymantria dispar (Linnaeus), defoliation, if present.

### SURVEY RESULTS

Large areas of defoliation were observed within the Park. A total of 11,160 acres were defoliated, of which 1,875 were classified as heavy defoliation. Specimens sent to the field surveillance lab at the Doraville Field Office prior to the aerial survey were identified as - linden looper Eramnis tiliara (Harr.) and phigalid looper Phigalia titea (Cram.). On site examinations also revealed the typical "shot hole" defoliating pattern of the fall cankerworm and spring cankerworm. All larvae had pupated before the ground checks. Defoliated areas would tend to mask the areas of actively feeding gypsy moth larvae, if present. However, no evidence of gypsy moth was observed within the Park during this survey. Figures 1-3 illustrate the areas of defoliation classified as light, moderate, and heavy. This was the second consecutive year of heavy defoliation around the Pocosin Cabin area at Mile Post 60 on the Skyline Drive. This defoliation was again highly visible from the Skyline Drive and Appalachian Trail which passes through this area.

### CONCLUSION

Forest insect and disease activity does not pose a serious threat to the timber or recreational values within the park at this time. Defoliated trees observed

during this survey had already begun to refoliate and should no longer detract from the aesthetic values along the Skyline Drive. In areas of heavy defoliation, growth loss and branch dieback may occur. In the area around Mile Post 60 within a climax oak-hickory forest type on the Skyline Drive some tree mortality may be expected. Normally, native parasites and predators keep these insect populations in check. National Park Service personnel should continue field surveillance within the Park especially within the heavily defoliated areas.

---

For additional information, contact:

USDA Forest Service FPM  
3620 Interstate 85, N.E.  
Northgate Office Park, Room 2103  
Doraville, GA 30340  
Telephone: 404/221-4796

or

USDA Forest Service FPM  
P.O. Box 5895  
Asheville, NC 28803  
Telephone: 704/258-2850



Fig. 1 - Results of Forest Insect and Disease Aerial Detection Survey, June 22, 1981.  
Hardwood defoliation classified as  
L - light, M - moderate and H - heavy.

LEGEND

- First Class Roads
- Second Class Roads
- Third Class Roads
- Fourth Class Roads
- Park Service Roads
- For public use
- Appalachian Trail
- Park Service Trail
- Blue Blazing Trail

Yellow Blazed Trails  
Not maintained or maintained for public use  
For experienced hikers only

- Unmarked Trails
- Buildings, Church, School
- Cabin, Shelter
- Entrance Station, Ranger Station
- Stream and Falls
- Spring
- County Boundary
- Park Boundary

Contour Interval 100 Feet  
Sherandoah National Park

Virginia  
West Virginia

Scale 1:63,360 or 1 Inch = 1 mile

Published by the Potomac Appalachian Trail Club

1710 9 Seven R.R., Washington, DC 20036

Revised 1981 - June 1981

Prepared by the Maps Committee, based on U.S.G.S. 7.5' quadrangles, and

extensive field checking by many P.A.T.C. members and the Shenandoah National Park Rangers, with special assistance by Roger Burchett, the producer by

C.W. Davies and B.C. Hartman, edited by E.W. Walker, Cartographer

Dedicated to the memory of all who visit this section of the Shenandoah National Park to reverse the effects of the Appalachian Trail and other trails, and to explore these wild areas for pleasure, relaxation, recreation, and the observation of nature.



